



## SEQUENCE LISTING

<110> Kosan Biosciences, Inc.  
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Peck, Larry  
Dayem, Linda  
Kealey, James

<120> HETEROLOGOUS PRODUCTION OF POLYKETIDES

<130> 30062-20049.00

<140> US 09/699,136

<141> 2000-10-27

<150> US 60/161,414

<151> 1999-10-25

<150> US 60/161,703

<151> 1999-10-27

<150> US 60/206,082

<151> 2000-05-18

<160> 2

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 447

<212> DNA

<213> Artificial Sequence

<220>

<223> Isolated and recombinant form of the full  
epimerase gene sequence

<221> CDS

<222> (1)...(444)

<400> 1

atg agt aat gag gat ctt ttc atc tgt atc gat cac gtg gca tat gcg	48
Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala	
1 5 10 15	

tgc ccc gac gcc gac gag gct tcc aag tac tac cag gag acc ttc ggc	96
Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly	
20 25 30	

tgg cat gag ctc cac cgc gag gag aac ccg gag cag gga gtc gtc gag	144
Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu	
35 40 45	

atc atg atg gcc ccg gct gcg aag ctg acc gag cac atg acc cag gtt	192
Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val	

50	55	60	
cag gtc atg gcc ccg ctc aac gac gag tcg acc gtt gcc aag tgg ctt			240
Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu			
65	70	75	80
gcc aag cac aat ggt cgc gcc gga ctg cac cac atg gca tgg cgt gtc			288
Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val			
85	90	95	
gat gac atc gac gcc gtc agc gcc acc ctg cgc gag cgc gcc gtg cag			336
Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln			
100	105	110	
ctg ctg tat gac gag ccc aag ctc gcc acc gcc gcc aac cgc atc aac			384
Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn			
115	120	125	
ttc atg cat ccc aag tcg gcc aag gcc gtg ctc atc gag ctc acc cag			432
Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln			
130	135	140	
tac ccg aag aac tga			447
Tyr Pro Lys Asn			
145			

<210> 2  
 <211> 148  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Deduced amino acid sequence of the epimerase gene  
 sequence

<400> 2  
 Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala  
 1 5 10 15  
 Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly  
 20 25 30  
 Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu  
 35 40 45  
 Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val  
 50 55 60  
 Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu  
 65 70 75 80  
 Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val  
 85 90 95  
 Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln  
 100 105 110  
 Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn  
 115 120 125  
 Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln  
 130 135 140  
 Tyr Pro Lys Asn  
 145